

ABSTRACT

- A method for measuring by means of ionization mobility spectrometry relatively high concentrations of water in argon, hydrogen, nitrogen and helium, characterized by comprising the followings operative steps:
- introducing the gas to be analyzed into an IMS instrument (10) with a counter-flow of pure gas;
 - obtaining a signal (19) variable during the time and proportional to the number of ions detected by an ion detector (14) of the IMS instrument (10);
 - 10 - determining two time intervals (A, B) corresponding to the drift times in the IMS instrument (10) of the H_3O^+ and $(\text{H}_2\text{O})_2^+$ ions;
 - obtaining the peaks of said signal (19) in the two determined time intervals (A, B);
 - calculating the water concentration in the gas to be analyzed according to the
 - 15 ratio between the intensity of the two peaks obtained in the signal (19).